

Supplementary Table 13 Comparison of transporter classes in different aspergilli

		<i>Aspergillus niger</i>		<i>Aspergillus fumigatus</i> Af293		<i>Aspergillus nidulans</i> FGSG-A26		<i>Aspergillus oryzae</i>	
		#	%	#	%	#	%	#	%
ATPASES		94	10.9	71	8.2	73	8.4	100	11.6
ABC *	The ATP binding cassette (ABC) Superfamily	68	7.9	45	5.2	47	5.4	72	8.3
ArsAB	The arsenite-Antimonite (ArsAB) Efflux family	1	0.1	1	0.1	1	0.1	1	0.1
F-ATPase *	The H ⁺ or Na ⁺ translocating F-type, V-type and A-type ATPase (F-ATPase) superfamily	2	0.2	2	0.2	2	0.2	2	0.2
P-ATPase *	The P-type ATPase (P-ATPase) superfamily	23	2.7	23	2.7	23	2.7	25	2.9
ION CHANNELS		44	5.1	36	4.2	24	2.8	27	3.1
Annexin	The Annexin Family	2	0.2	3	0.3	2	0.2	2	0.2
CIC	The chloride channel (CIC) family	4	0.5	3	0.3	3	0.3	4	0.5
CytB	The gp91phox phagocyte NADPH oxidase-associated cytochrome b558 (CytB) H ⁺ -channel family	16	1.8	17	2.0	1	0.1	1	0.1
Mid1	The yeast stretch activated cation selective Ca ²⁺ channel (Mid1) family	1	0.1	1	0.1	1	0.1	0	0.0
MIP	The major intrinsic protein (MIP) family	5	0.6	3	0.3	4	0.5	7	0.8
MIT	The CorA metal ion transporter (MIT) family	6	0.7	3	0.3	6	0.7	7	0.8
MscL	The Large Conductance Mechanosensitive Ion Channel (MscL) Family	1	0.1	1	0.1	0	0.0	0	0.0
MscS	The small conductance mechanosensitive ion channel (MscS) Family	1	0.1	2	0.2	2	0.2	2	0.2
TRP-CC	The transient receptor potential Ca ²⁺ channel (TRP-CC) Family	3	0.3	1	0.1	1	0.1	1	0.1
VIC	The voltage-gated ion channel (VIC) superfamily	5	0.6	2	0.2	4	0.5	3	0.3
SECONDARY TRANSPORTERS		718	83.0	490	56.6	572	66.1	793	91.7
AAAP	The Amino acid/Auxin permease (AAAP) family	22	2.5	17	2.0	14	1.6	24	2.8
ARC3	The Arsenical resistance-3 (ACR3) family	1	0.1	3	0.3	1	0.1	1	0.1
AE	The Anion exchanger (AE) family	3	0.3	2	0.2	2	0.2	2	0.2
AEC	The Auxin Efflux Carrier (AEC) Family	1	0.1	2	0.2	2	0.2	2	0.2
Amt	The ammonium transporter (Amt) Family	5	0.6	3	0.3	4	0.5	4	0.5
APC	The Amino acid polyamine-organocation (APC) family	62	7.2	48	5.5	55	6.4	76	8.8
BASS	The Bile Acid:Na ⁺ symporter (BASS) Family	1	0.1	1	0.1	1	0.1	1	0.1
CaCA	The Ca ²⁺ :cation antiporter (CaCA) Family	10	1.2	7	0.8	6	0.7	10	1.2

CCC	The Cation-Chloride cotransporter (CCC) family	1	0.1	1	0.1	1	0.1	1	0.1
CDF	The Cation Diffusion Facilitator (CDF) Family	7	0.8	7	0.8	6	0.7	7	0.8
CHR	The Chromate Ion Transporter (CHR) Family	1	0.1	1	0.1	2	0.2	1	0.1
CNT	The Concentrative Nucleoside Transporter (CNT) Family	1	0.1	1	0.1	1	0.1	1	0.1
CPA1	The Monovalent Cation:Proton Antiporter-1 (CPA1) Family	4	0.5	4	0.5	6	0.7	6	0.7
CPA2	The Monovalent Cation:Proton Antiporter-2 (CPA2) Family	3	0.3	3	0.3	3	0.3	3	0.3
DAACS	The Dicarboxylate/Amino Acid:Cation (Na ⁺ or H ⁺) Symporter (DAACS) Family	0	0.0	0	0.0	1	0.1	0	0.0
DASS	The Divalent Anion:Na ⁺ symporter (DASS) Family	2	0.2	1	0.1	1	0.1	1	0.1
DMT	The Drug/Metabolite Transporter (DMT) Superfamily	13	1.5	12	1.4	11	1.3	10	1.2
ENT	The Equilibrative Nucleoside Transporter (ENT) Family	1	0.1	1	0.1	1	0.1	1	0.1
FNT	The Formate-Nitrite Transporter (FNT) Family	0	0.0	0	0.0	1	0.1	2	0.2
GPH	The Glycoside-Pentoside-Hexuronide (GPH):Cation Symporter Family	4	0.5	2	0.2	2	0.2	2	0.2
GUP	The Glycerol Uptake (GUP) Family	2	0.2	1	0.1	1	0.1	1	0.1
KUP	The K ⁺ Uptake Permease (KUP) Family	0	0.0	0	0.0	0	0.0	1	0.1
LCT	The Lysosomal Cystine Transporter (LCT) Family	2	0.2	3	0.3	2	0.2	2	0.2
MC	The Mitochondrial Carrier (MC) Family	39	4.5	36	4.2	35	4.0	43	5.0
MFS	The Major Facilitator Superfamily (MFS)	461	53.3	275	31.8	358	41.4	507	58.6
MOP	The Multidrug/Oligosaccharidyl-lipid/Polysaccharide (MOP) Flippase Superfamily	0	0.0	1	0.1	2	0.2	2	0.2
MTC	The Mitochondrial Tricarboxylate Carrier (MTC) Family	1	0.1	0	0.0	1	0.1	2	0.2
NCS-1	The Nucleobase:Cation Symporter-1 (NCS 1) Family	10	1.2	6	0.7	11	1.3	12	1.4
NCS-2	The Nucleobase:Cation Symporter-2 (NCS 2) Family	3	0.3	2	0.2	3	0.3	2	0.2
NiCoT	The Ni ²⁺ -Co ²⁺ Transporter (NiCoT) Family	1	0.1	1	0.1	1	0.1	1	0.1
Nramp	The Metal Ion (Mn ²⁺ -iron) Transporter (Nramp) Family	1	0.1	1	0.1	1	0.1	1	0.1
NSS	The Neurotransmitter:Sodium Symporter (NSS) Family	0	0.0	0	0.0	1	0.1	1	0.1
OPT	The Oligopeptide Transporter (OPT) Family	12	1.4	8	0.9	6	0.7	10	1.2

PIT	The Inorganic Phosphate Transporter (PIT) Family	2	0.2	3	0.3	4	0.5	4	0.5
POT	The Proton-dependent Oligopeptide Transporter (POT) Family	4	0.5	7	0.8	4	0.5	16	1.8
RND *	The Resistance-Nodulation-Cell Division (RND) Superfamily	6	0.7	3	0.3	1	0.1	7	0.8
SSS	The Solute:Sodium Symporter (SSS) Family	4	0.5	2	0.2	4	0.5	3	0.3
SulP	The Sulfate Permease (SulP) Family	6	0.7	4	0.5	4	0.5	4	0.5
TDT	The Telurite-resistance/Dicarboxylate Transporter (TDT) Family	5	0.6	7	0.8	3	0.3	6	0.7
ThrE	The Threonine/Serine Exporter (ThrE) Family	4	0.5	4	0.5	3	0.3	0	0.0
Trk	The K ⁺ Transporter (Trk) Family	5	0.6	4	0.5	2	0.2	5	0.6
ZIP	The Zinc (Zn ²⁺)-Iron (Fe ²⁺) Permease (ZIP) Family	8	0.9	6	0.7	4	0.5	8	0.9
UNCLASSIFIED		9	1.0	4	0.5	4	0.5	4	0.5
Ctr2	The Copper Transporter-2 (Ctr2) Family	5	0.6	2	0.2	3	0.3	1	0.1
FeT	The Low Affinity Fe ²⁺ Transporter (FeT) Family	1	0.1	1	0.1	0	0.0	2	0.2
IRT	The Iron/Lead Transporter (IRT) Superfamily	3	0.3	1	0.1	0	0.0	0	0.0
FP	The Ferroportin (FP) Family	0	0.0	0	0.0	1	0.1	1	0.1
Genome Size (Mb)		33.9		29.4		28.5		37	
Total transporter proteins		865		601		673		924	
No. of transporters per Mb genome		25.52		20.44		23.61		24.97	

* Transporters that function as a group are counted only once